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10/716,537

11/20/2003

Kentaro Yokoi

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08/22/2007

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EXAMINER

AKHAVANNIK, HADI

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/716,537

Applicant(s)

YOKOI, KENTARO

Examiner

Hadi Akhavannik

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>11/20/03 8/4/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The examiner acknowledges the election of group I, species of figure 2. Claims 1-5 and 10-14 are elected with traverse.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-5 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo et al. (7123754, referred to as "Matsuo" herein) in view of Tatsumi (6172706).

Regarding claim 1, Matsuo discloses an individual recognizing apparatus comprising: a data acquisition unit to acquire certifying data from a recognized person (figure 1, item 5 and column 4 lines 45-50 discloses image input means that can be either a still image or video);

an aptitude judging unit to judge whether the certifying data acquired by the data acquisition unit is appropriate for the preparation of a certifying dictionary based on the change in the feature points calculated by the change calculation unit (column 7 lines 55 to column 8 line 16 discloses a judging unit that has an evaluation function to judge if the data is appropriate);

a dictionary preparing unit to prepare a certifying dictionary based on the certifying data acquired by the data acquisition unit when the certifying data is judged appropriate; a dictionary storing unit to store the certifying dictionary prepared by the dictionary preparing unit (column 9 lines 55-60 discloses preparing the dictionary and having the acquire the data);

and a certifying unit to certify whether a recognized person is a proper person using the certifying data acquired by the data acquisition unit and the dictionary stored in the dictionary storing unit (column 7 line 61 to column 8 line 2 discloses evaluating the data) .

Matsuo does not explicitly disclose a detection unit to detect feature points of the certifying data acquired by the data acquisition unit and a change calculation unit to calculate the change of the detecting positions of the feature points detected by the detection unit. Although Matsuo does disclose a face pose calculation unit in column 9 and 10 which checks the data against multiple facial poses.

Tatsumi discloses a detection unit to detect feature points of the certifying data acquired by the data acquisition unit (column 8 lines 34-50 discloses detecting the eye data)

and a change calculation unit to calculate the change of the detecting positions of the feature points detected by the detection unit (column 3 lines 50-60 discloses calculating the change in the eyes).

It would have been obvious at the time of the invention to one of ordinary skill in the art to include in Matsuo a change and detecting unit as taught by Tatsumi. The

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reason for the combination is because it makes for a more robust system that is able to track feature points through a plurality of images or frames also see motivation by Tatsumi in column 3 lines 61-65. Further, please note that both inventions are from the same field of endeavor of face detection.

Regarding claim 2, Tatsumi discloses tracking the change of the eyes direction within the image and also calculating the interval between the eyes (see the rejection of claim 1 and column 6 lines 65 to column 7 line 20. This includes calculating the angle changes).

Regarding claim 3, the rejection of claim 1 discloses that the data is face images.

Regarding claim 4, Tatsumi discloses finding eyes in the rejection of claim 1 and 2

Regarding claim 5, the examiner takes official notice that it would have been exceedingly obvious at the time of the invention to one of ordinary skill in the art to include in Matsuo and Tatsumi a means restart the evaluation with the data is judged to be inappropriate. The reason is because it is well known to create a loop in the system when attempting to detect faces within an image.

Regarding claim 10-14, these are the method claims of claims 1-5 and the rejection of claim 1-5 disclose all aspects of claim 10-14.

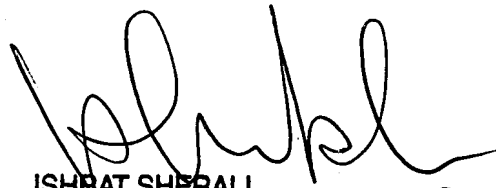
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Akhavannik whose telephone number is 571-272-8622. The examiner can normally be reached on 10:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571)272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HA
8/17/07


ISHRAT SHERALI
PRIMARY EXAMINER

8-18-07